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A Guide to Reading

THE CANADIAN NORTH

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THE CANADIAN NORTH

THE designation "North", like most descriptive terms, is relative in meaning. Just how far north does the "north" begin? To the Greeks and the Romans it was as far south as the Black Sea or the shores of Britain, the outer limits of their civilization, and regions of cold and danger to be shunned if possible. As man's horizons broadened with his increasing knowledge and conquest of the earth, however, the dreaded north receded farther and farther until today it is commonly assumed to comprise the Arctic and sub-Arctic regions of the world. Of these areas two countries, Canada and Russia, possess the largest share and their northern possessions, formerly regarded as of doubtful value, have in the light of twentieth century developments begun to assume considerable importance. Soviet Russia has been bending every possible effort since the 1920's to the study and exploitation of her northern resources and the feeling is growing among men familiar with northern conditions that Canada's northland may in the future be a powerful factor in her development as a nation.

Roughly the Arctic regions of the world consist of the land and water areas about six million square miles in extent lying within the Arctic circle, latitude 66° 32' north. The term "Arctic" is apt to be synonymous in the popular mind with eternal cold and desolation but just as the degree of latitude in the temperate zone is only partially responsible for the climate and vegetation of any specific area, so in the Arctic other forces react to produce a differentiation in con-

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ditions. The all-year-round ice-free port of Murmansk which has meant so much to the cause of the United Nations since 1941 lies in practically the same latitude as the dangerous and in many years almost inaccessible "Liverpool Coast" of Greenland, on the same latitude as the bay north of King William Land in the Canadian Arctic which irretrievably entombed Franklin's ships, and as the mouth of the Mackenzie, a river whose basin forms the so-called "banana belt" of the Arctic and down which passes the yearly shipping of the Canadian north. The port of Murmansk is the result of the beneficent influence of the Gulf Stream, while the Liverpool Coast lies along one of the chief ice outlets of the Polar Sea. Similarly the ice is jammed into Erebus Bay by the various channels among the Canadian Arctic islands while the mouth of the Mackenzie is open to the Beaufort Sea.

THE TREE LINE IS THE BOUNDARY LINE

While the Arctic Circle is the nominal, the tree line is the real boundary line between Arctic and temperate regions. As one goes north the trees get smaller and smaller until they disappear altogether except as dwarf varieties. The Arctic lands are a vast, grassy plain and for this reason have often been called the "Arctic Prairies". In Canada the tree line in the Western Arctic is reached a few miles south of the mouth of the Mackenzie, but east of Great Slave Lake the line dips far south of the Arctic Circle so that even the lower part of Hudson Bay (not shown on the map which accompanies this sketch) has a narrow fringe of Arctic vegetation. These lands west and east of Hudson Bay are known as the "Barrens" and are the "tundra" of Arctic Canada. Labrador too, owing to the cold current which carries great quantities of ice down its coast from

Greenland, has an arctic type of climate and though under the administration of Newfoundland is often lumped for convenience in discussion with the Canadian north.

THE LAND SURFACE

Arctic lands are of two main types—those covered by an ice-cap like that of Greenland, and those which for a brief period each year are free of the ice and snow which have accumulated during the ten winter months. An ice-cap is really only a glorified glacier. The ice and snow which in certain regions never melted entirely even in summer have piled up with the centuries until in the case of Greenland they have covered all the land except for a narrow fringe around the coast and a larger section, Peary Land, in the extreme north. In the centre of Greenland the ice reaches the almost unbelievable depth of seven thousand feet. In the Canadian Arctic there are glaciers of considerable size in Ellesmere Land and Axel Heiberg Island and lesser ones in Baffin Island. West of these lands the Canadian Arctic is free of glaciers except in the Rockies. One reason is that precipitation both in summer and winter is very small and frequent winter gales sweep the snow off the level ground. Thus in the Canadian north we have an almost natural division into Eastern and Western Arctic, with the Eastern Arctic more allied to Greenland in nature and the Western with a relatively "friendly" climate.

THE POLAR SEAS

Then there are the polar seas. Contrary to popular belief sea ice does not form an unbroken expanse even in winter. Due to the action of winds and currents leads constantly open and close and by means of them passage may

be made through the ice. The tremendous pressure exerted when wind or current cause the ice to pile up, raises great ridges which make the surface of the sea ice rough and hummocky and extremely dangerous for ships. Of the channels between the Canadian Arctic Islands a number are open for some time each summer while others, shallow and without strong current or situated so that the ice from other areas is piled up in them, may open only once in a while. In years of great cold ice conditions are, of course, much worse but in any case the navigation of the polar seas remains an uncertain business. Experienced sailors know from the look of the sky what lies ahead and some dangers may thus be avoided. For example, a dark line on the horizon betrays the presence of open water and is a welcome sight indeed, while a whitish glow in the sky heralds an area of extended ice.

PLANT AND ANIMAL LIFE

In the Arctic generally the long severe winters and the short summers prevent the normal growth of cereals, fruits, and vegetables. Even in the more clement parts the earth is permanently frozen to a great depth with only a surface layer thawing out in the warm period. Yet in the summer vegetation is surprisingly varied. As the snow melts moss and hardy grasses appear first and serve as food for the herds of caribou and the lesser numbers of the muskox. Many species of flowers soon brighten the face of the plains. It has now been fairly conclusively proven that animal life exists everywhere in the polar north. Swarms of lemmings serve to keep alive the foxes, hawks, owls, and gulls, while Arctic wolves feed on the caribou. Swans, geese, crows, and various species of ducks are also numerous in addition

to ptarmigan. In the sea are narwhal and walrus together with large numbers of seals which provide the main item of diet for the big white polar bear. In the summer time insect life is extremely annoying to man and beast, and black flies and mosquitoes abound. During the severe winter months the Arctic supports an abundance of animal life and it is then that the important business of trapping is carried on.

On the whole, the climate in the Canadian Arctic is more severe than in Alaska and Greenland, although it has by no means recorded the lowest temperatures on the continent. During the summer very high temperatures are reached in certain parts and the long period of sunlight results in rapid growth of vegetation. Thus in the Mackenzie valley vegetables are grown for local consumption and experiments are being carried out in the growing of cereals. Many of the Canadian Arctic Islands and sections of the mainland "Barrens" are sparsely covered with vegetation due first, to the prevalence of high winds which retard summer growth and in the winter sweep away the protecting cover of snow, secondly, to the lack of moisture in summer, and thirdly, to the absence of fertilization which is the result of a lack of animal life. In the sheltered areas, however, vegetation of a sort is fairly abundant.

EXPLORATION OF THE NORTH

One of the chief differences between the north and south polar regions is that while the Antarctic is preponderantly a land mass approached across wide expanses of southern ocean, the Arctic consists of a large polar sea fringed by the northern extremities of America, Europe, and Asia. In the north explorers have, as it were, been led on by easy stages from land to land. Almost completely enclosed, the polar sea has but four approaches, through

Bering Strait between Asia and America, through Baffin Bay between Baffin Island and Greenland, through Denmark Strait between Greenland and Iceland, and along the coast of Norway. At first glance the route along the Gulf Stream seems the most attractive means of access, for its strong warm current keeps the Norwegian coast free of the ice which flows out through the other three openings, but after North Foreland the route soon takes on the dangers and difficulties common to its rivals. When to the terrors of the unknown were added the hardships of cold, ice, and the long polar night, it is remarkable that men ventured at all into northern waters. Yet the same forces, adventure and desire for gain, which tempted earlier sailors from the Mediterranean to the forbidding waters of the west drove them on.

The voyages and colonies of the Vikings were nothing but legends when several factors, among them the interference with the land trade routes to the east by the Turks, combined to turn the eyes of Europe again to the west. After the Portuguese had successfully opened a new route by the Cape of Good Hope, Columbus conceived the idea of sailing due west, and five years later John Cabot made a similar attempt for England in the north. Both found land but land which later proved to be a barrier stretching from the north to the tropics shutting them out from the east. The finding of an opening which their desires told them must exist became the immediate objective of many men, but especially of the English who found themselves cut off from the south by the might of Spain. The search went on at intervals for over three hundred and fifty years and when it was finally accomplished most of Canada's Arctic had been discovered.

Eighty years after Cabot, Martin Frobisher sailed under the auspices of the Muscovy Company to become the first man since the Vikings to sight the southern tip of Greenland. He finally reached the coast of America at Frobisher Bay (which he believed to be a strait) on the south-east coast of Baffin Island. Frobisher brought back to England from the new land samples of iron pyrites, and in the belief that they contained gold two more expeditions were entrusted to his leadership, the second of which carried colonists. Storms and losses at sea frustrated the attempt to found a

colony, and Frobisher returned from his third voyage to receive the news of the worthlessness of his "fool's gold". Interest in the passage was undiminished, however, and in 1584 a patent was granted to the Northwest Company. The Company immediately sent out John Davis who discovered the strait which bears his name, and on his third voyage reached a latitude of 72° on the west coast of Greenland at Sanderson's Hope. From there he crossed the strait and drifted south along the land that Frobisher had discovered although he did not recognize it, passing the mouth of the strait to be discovered by Hudson in 1610. By 1616, financed by the same company, Henry Hudson had sailed through Hudson Strait and into Hudson Bay and William Baffin had penetrated up the western coast of Greenland past Melville Bay and into Smith Sound. On his return the latter sailed down the west side of Baffin Bay and noted both Jones and Lancaster Sounds. Convinced, however, that they were inlets he came to the conclusion that the bay he had discovered afforded no opening to the Pacific. His report discouraged further work in Baffin Bay and the existence of the Bay itself became so legendary that it was left off some of the later maps.

Meanwhile Sir Thomas Button had been sent out to explore the bay discovered by Hudson. He wintered at the mouth of the Nelson River and traced the coast northward to Southampton Island. In 1619 a Dane, Jens Munk, wintered on the present site of Churchill and in 1631 two separate English expeditions were sent out. Luke (North-West) Foxe sailed into Roe's Welcome and then up to the Arctic Circle on the east coast of Baffin Island. Captain James skirted the western shore of Foxe Channel sailing up the coast of Southampton Island to latitude 65° 30'. James wintered in the southeastern extension of the big bay which was later named after him.

In 1670 the Hudson's Bay Company was incorporated and its charter bound the Company to continue the search for the Northwest Passage. In spite of this its attitude towards the whole affair was apathetic until sharp criticism prodded it into sufficient activity to send various groups to explore the coast. Finally in 1742 a certain Captain Middleton made a thorough investigation of Wager Inlet, Roe's Welcome, Repulse Bay, and Frozen Strait. His unfavourable

report was not pleasing to his superiors who in 1746 sent out another expedition under Captain Moore. Moore confirmed Middleton's findings although he had hopes for Chesterfield Inlet. The latter was surveyed in 1761 and 1762, and ended the Hudson Bay dream.

On the other side of America Bering Strait had been discovered in 1728 by Vitus Bering, a Dane in the service of the Russian navy, and in 1776 the British Admiralty sent Captain James Cook to make the attempt of the passage from the Pacific to the Atlantic. Cook sailed through Bering Strait on the American side but was stopped at Icy Cape by ice. He then crossed to the Asiatic shore to attempt the Northeast Passage but was again thwarted. Cook turned south to his death in the Sandwich Islands but his crew returned north the following year only to repeat his failure. Two attempts by the Admiralty to send a ship into Baffin Bay in the somewhat optimistic hope of meeting Cook at the eastern end of the Northwest Passage also failed.

In the latter part of the eighteenth century two overland expeditions reached the polar sea. In 1771 Samuel Hearne, an employee of the Hudson's Bay Company, crossed from Fort Churchill on Hudson Bay and traced the Coppermine River to its mouth. In 1789 Alexander Mackenzie, a trader of the North West Company, discovered the Mackenzie River and followed it to the sea. By now, however, the idea of a Northwest Passage had lost favour. England was engaged in a bitter struggle for survival and the impracticability of such a route for trade even if it could be found, had become apparent to all.

Then in 1818 the auspices again became favourable. England's triumph on the continent was complete and her merchants and capitalists were looking for new fields to conquer. At that precise moment William Scoresby Jr., one of the most famous whaling captains of his day who was also interested in the north from a scientific point of view, reported to John Barrow, the second secretary of the Admiralty, that the phenomenal ice conditions of the last two years seemed to promise success for a polar expedition in 1818. His report and Barrow's enthusiasm led to the re-opening of the search for the Northwest Passage and to one of the most exciting chapters in the history of Canada's exploration.

The Admiralty sent out four ships in all, two with orders to go via Spitsbergen directly across the Pole to Siberia, the other two to sail the Northwest Passage. No great difficulty was anticipated in the accomplishment of either project. Captain John Ross with Lieutenant Edward Parry as second in command headed for the bay Baffin had discovered two centuries before to ascertain whether any of the three openings noted by him, Smith, Jones, and Lancaster Sounds, were the sought-for passage. Sailing northward along the west coast of Greenland Ross reached Melville Bay before his ships were beset. Later, freed from the ice, he rounded Cape York and then crossed to the south of Smith Sound, too far south to be certain whether it were a channel or not. He did not explore Jones Sound but he did sail down Lancaster Sound for some fifty miles, when, sighting land as he believed around the end of the bay, he returned home.

In spite of Ross's report everyone in England was certain that the channel leading to Bering Strait opened from Lancaster Sound, and the following year Parry, who in 1818 had urged his commander to push on, was put in charge of a second expedition. He sailed up the west coast of Greenland to Sanderson's Hope and then dared the dangerous "middle pack" of Baffin Bay to reach the entrance to Lancaster Sound a month earlier than Ross had done the previous year. Although stopped at times by ice he penetrated through Barrow Strait to Melville Sound where he could see the last passageway leading to the polar sea. Heavy ice prevented further progress however, and as the season was now late Parry took up winter quarters on the south side of Melville Island. In the following June he explored the interior of the island and at the beginning of August sailed out of Winter Harbour to make another attempt at McClure Strait. Again he failed to get through and finally sailed for England. In this dramatic voyage he had sighted nearly every one of the large Arctic islands in the western hemisphere.

Parry made two more voyages to the Arctic, neither of them as successful as the first in relation to the search for the Passage except in the sense that all possible openings had to be explored at one time or another, but which nevertheless added much to the

knowledge of Arctic America. In the belief that he had been too far north on his first trip he explored the channels to the north of Hudson Bay from 1821 to 1823, and though he did discover Fury and Hecla Strait was not able to sail through it. In 1824-5 he made the attempt to reach the western end of this strait down Prince Regent Inlet which he had noted on his first voyage, but he had little success and lost one of his ships.

Meanwhile the mapping of the northern coast of America was being carried forward by land expeditions. John Franklin had been second in command of the 1818 attempt to sail over the Pole, and in 1819 when Parry sailed on his first voyage, Franklin left for York Factory on Hudson Bay to commence land explorations. Among his men were Richardson and Back, both to become famous in the Canadian Arctic. The expedition was to descend Hearne's Coppermine River and then map the coast to the east. Point Turnagain on the coast east of Bathurst Inlet was reached before the party had to turn back to a frightful journey across the Barrens on which some of the members perished.

When Parry sailed for the third time Franklin again set out by land to co-operate in the continuance of the search for the Northwest Passage. He and Back were to descend the Mackenzie and trace the coast westward as far as Cook's Icy Cape where Captain Beechey was to await Parry, while Richardson and a Mr. Kendall were to map the coast between the Mackenzie and the Coppermine. Beechey succeeded in penetrating eastward as far as Point Barrow while Franklin reached a point just one hundred and sixty miles east of him. Richardson and his companion completed the whole of their assignment.

The failure of Parry's third voyage discouraged both the Admiralty and the public. Arctic exploration for a time was left to the interest and support of individuals, and it was through the generosity of the wealthy Felix Booth that in 1829 John Ross and his nephew James set out to follow the route through Prince Regent Inlet. Their ship the *Victory* was the first steam driven ship to be used in northern waters, although a far from satisfactory one. Again Ross missed a vital link in the Northwest Passage when he passed without noticing it, little Bellot Strait, and sailed down into

the landlocked Gulf of Boothia. The *Victory* never left the Gulf and the expedition spent four winters in the north, finally making its way by foot to Lancaster Sound where it was picked up by whalers. However, five hundred miles of territory had been charted, King William Land discovered, and the North Magnetic Pole located. When the party failed to return in the expected time Back, in an attempt at rescue, set out by land to trace the Great Fish River which the Indians said reached the ocean at about the place for which Ross was aiming. After wintering on Great Slave Lake, Back received word of Ross's return but carried on with the plan and successfully made the journey to the Arctic Ocean. The river was re-named Back's River.

Thus by 1834 the coast line had been traced with the exception of two blank spaces, a short one between Franklin's furthest west and Point Barrow, and a longer one between Bathurst Inlet and Repulse Bay broken only by the mouth of Back's River. The Hudson's Bay Company, reaping the benefit of the opening of the far northern trade, now undertook to complete the survey. In charge of the work was Peter Dease, who had assisted Franklin on his second expedition, with Thomas Simpson, a most remarkable young man, as his second. In 1837 the latter reached Point Barrow from the mouth of the Mackenzie and in the next two years surveyed the coast as far as King William Land off the mouth of Back's River. His tragic death prevented his completion of the mapping of the coast to Fury and Hecla Strait. In 1845 Dr. John Rae, another Hudson's Bay official, crossed Rae Isthmus by sledge to attempt Simpson's final project in reverse. Rae is famous as the first northern explorer to "live off the country" but failed to complete the coast line.

In the same year the British Admiralty sent out, under Sir John Franklin, its most ambitious expedition in search of the Passage. His two ships were last seen in Baffin Bay, July 1845. When no news had been heard from the party by 1847 a search was organized, and in the following ten years six land and thirty-four sea parties set out to learn the fate of the missing men. The work of these groups resulted in the discovery of practically all the remaining unknown lands of the Canadian Archipelago. Three men in par-

ticular were outstanding, Robert McClure who found two possible links in the Passage, Rae, who brought the first news of the fate of Franklin's men, and Leopold McClintock, whose journeys became a model for all future sledging-parties and who confirmed the truth of Rae's report. McClure found Prince of Wales Strait between Banks and Victoria Islands and sailed almost to its north-eastern end but was prevented by ice from getting into Melville Sound. Sailing around Banks Island he entered McClure Strait but again failed to penetrate to Melville Sound. On a journey on western Boothia peninsula, Rae met an Eskimo who told of the death of white men by starvation near the Back River delta. Rae obtained proofs in the form of relics of the expedition from other Eskimos and on the strength of his information received the government award for the first definite news of the expedition. Rae's story did not satisfy Lady Franklin and she sent McClintock to verify the facts. In his remarkable journeys the latter ascertained the fate of Franklin and his men, completed the discovery of the coast line, made a circuit of King William Island, and by his trip down Rae Strait to Montreal Island at the mouth of Back's River, found the passage which Amundsen successfully negotiated fifty years later. Those of Franklin's men who reached the mouth of Back's River before him may be said to have been the first to prove that a Northwest Passage actually did exist. The latest contributions to the solution of the Franklin mystery were made by William Gibson of the Hudson's Bay Company from his station on King William Island.

In August, 1906, Roald Amundsen completed the voyage of the Northwest Passage, the first to do so, after having spent two winters in King William Island and one near Herschel Island. In 1923 Knud Rasmussen traversed it by dog-sled as a part of the Fifth Thule Expedition. It remained for the year 1944 to see the Passage conquered in one year by the little R.C.M.P. steamer, St. Roch, which made the journey through McClure Strait. The twin difficulties of shallow water and pack ice in the various channels have up till now precluded any extensive use of the passage. About the only vessels which enter its waters regularly are the R.C.M.P. boat, usually maintained at the Mackenzie delta to pick up river

freight for the supply of Canadian government establishments, and two Hudson's Bay Company boats serving the various trading posts, which every summer ply the eastern and western sections of Amundsen's route respectively and meet in Bellot Strait.

Considerable space has been devoted to the search for the Northwest Passage because it was the key-piece in Canada's Arctic puzzle. Its discovery hinged around Lancaster Sound. Most of the other islands of the Archipelago were discovered as a result of exploration based on Baffin's other two openings, Smith and Jones Sounds. The opening of Smith Sound was begun as part of the Franklin search when Inglefield, sent by Lady Franklin to look around to the north of Baffin Bay, reached Kane Basin and named the land on the west side of the Sound, Ellesmere Land. The Americans Kane, Hayes, and Hall, and the Englishmen Nares and Markham, followed the route farther and farther north and it was on Ellesmere Island that most of the Greely expedition, an American contribution to the International Polar Year of 1882-3, perished.

The lands bordering on Jones Sound were revealed by the group of Norwegian explorers under Otto Sverdrup which set out in 1898 and discovered Axel Heiberg Land and Amund and Ellef Ringnes Islands, as well as practically completing the survey of the west coast of Ellesmere Island. Sverdrup's findings were later confirmed by an American, Donald Macmillan. The Canadian Arctic Expedition of 1913-8 under the leadership of Vilhjalmur Stefansson was the last great expedition to the Canadian polar regions. Besides the scientific work accomplished under the direction of Dr. R. M. Anderson, Stefansson found and explored Brock, Borden, Meighen, and Lougheed Islands, probably the last unknown lands in that area.

Before leaving the story of the exploration of Canada's northland the opening of the inland Barrens should be mentioned. The Mackenzie River basin and the shores of Hudson Bay were early explored and taken over by the fur traders but the region between them was almost unknown until the journey of the Tyrell Brothers from Great Slave Lake to Chesterfield Inlet for the Geological Survey of Canada. Warburton Pike had crossed the Barrens in 1889-91 and David Hanbury made a similar trip in 1901-2. Other

men followed their trail and to a few of them the dreaded Barrens became familiar enough to be regarded as home.

Future exploration in all parts of the Canadian north will probably be entrusted to small groups in search of specialized information. In the matter of survey and mapping, aerial photography can do better in a few days what it took the poor plodding explorer of the nineteenth century painful years to accomplish. In the programme of the Canadian government parties sent out in recent years geographical exploration has been subordinated to the establishment of administrative posts and the furthering of scientific investigations. One of the most effective means of filling up the gaps in the knowledge of the Canadian Arctic has been the northern patrols of the Royal Canadian Mounted Police (formerly the Royal North West Mounted). Since 1898 when they first entered the Yukon the Police have established stations in many parts of the Canadian north and from these strategic points have gained considerable information about the surrounding territory. The most northerly station maintained by the Police was that on Bache Peninsula high up on Ellesmere Island which had to be abandoned because of the impossibility during several years of its being reached by the supply boat.

DEVELOPMENT OF THE NORTH

The story of the development of this vast northern territory of ours is as fascinating a tale as that of its discovery. After the early explorers came the fur traders. The Hudson's Bay Company tapped the fur resources of the Hudson Bay region from 1670 on, but the great country to the north and west was hardly known until Hearne made his journey across the Barrens and reached the Arctic in 1771. To a rival company, the Nor'westers, through the work of Alexander Mackenzie, went the credit for the opening up of the Mackenzie River basin, and after the union of the two organizations in 1821 and the land explorations of Franklin, Rich-

ardson, and the rest, the number of posts increased in this district. Not until after 1900 however, was the Eastern Arctic, exclusive of the immediate vicinity of Hudson Bay, opened to the trade, and it was 1915 before the Company began the chain of posts which now fringe the shores of the Passage. In 1869 with the purchase of Rupert's Land the Canadian government took over the political administration of all the Hudson's Bay lands but the fur trade remained in the Company's hands, and is still of great importance in the north where the white and blue fox is "coin of the realm" for the Eskimo and Indian. The exhaustion of the pelts, the new methods of fur farming, and the spread of settlement, however, may result in its gradual decline.

In the Eastern Arctic the whalers appeared in the wake of Ross's first expedition and remained until the bottom fell out of the whalebone market. Whaling in the Western Arctic was a later development, the first ships wintering at Herschel Island in 1889. The island remained the headquarters of the western group and their reign there until the advent of the law in 1903 forms a rough chapter in the history of the north. The whalers ranged the Arctic Islands as far north as Banks Island, but their day was over when a substitute for whalebone was invented.

Mineral Wealth.

In 1898 gold was discovered along the Yukon River and the subsequent rush brought gold-seekers, settlers, and the Police to that section of the country. The district of Yukon withdrew from the jurisdiction of the North West Territories in the same year, and although the hey-day of its prosperity and settlement was short-lived a residue of population remained to make permanent homes in the new terri-

ARCTIC OCEAN
POINT BARROW
BEAUFORT SEA
PRINCE PATRICK I.
BORDEN I.
MEIGHEN I.
RINGNES ISLANDS
MELVILLE I.
BATHURST I.
McClure Str.
Melville Sound
Barrow
HERSCHELL I.
BANKS ISLAND
Prince of Wales Str.
VICTORIA ISLAND
PRINCE OF WALES I.
NORTH MAGNETIC POLE
KING WILLIAM I.
AKLAVIK
TREE
Mackenzie River
YUKON
Great Bear L.
PORT RADIUM
POINT NORMAN
Coppermine River
LINE
Great Fish River
Backhurst Inlet
ARCTIC C.
YELLOWKNIFE
Great Slave
TREE

GREENLAND
Kane Basin
Smith Sound
Cape York
Melville Bay
Sandersons Hope
BAFFIN BAY
DAVIS STRAIT
BAFFIN ISLAND
Fury and Hecla Str.
Foxe Basin
RAE ISTHMUS
Foxe Channel
Frobisher Bay
Hudson Strait
SOUTHAMPTON I.
Roes Welcome Sd.
HUDSON BAY
LABRADOR
LINE

tory. In 1919 oil was struck at Fort Norman and the event precipitated another rush to the north. With the influx of whites came the necessity for more specialized administration of the Territories, and a new government branch was put in charge, assisted by the Royal Canadian Mounted Police. The area was divided into three districts, Mackenzie (the western part of the mainland section), Keewatin (the eastern part adjoining Hudson Bay), and Franklin (the Arctic Archipelago which had been turned over to Canada by the British government in 1880).

In 1930 and '31 Gilbert LaBine found silver and pitchblende deposits at the eastern end of Great Bear Lake. Prospectors and their camp-followers poured into the district, and by 1932 the most northerly mine in the world was in operation at Port Radium. This mining coup was followed in 1935 by the discovery of gold on Great Slave Lake and the town of Yellowknife sprang into being almost over night. The development of these areas was made possible by the aeroplane which had become a definite factor in the western north after 1921. Conversely the discovery of mineral wealth in the area considerably hastened the spread of aerial travel and transportation in the Mackenzie District.

Transportation,—the Aeroplane in the North.

The early fur traders had used the lake and river route from Hudson Bay to the Mackenzie but a waggon road from Fort Edmonton to Athabaska Landing completed in 1886, made the former rather than Churchill and Winnipeg the jumping-off place for the north. From the Athabaska, canoes and York boats in summer, dog teams in winter, formed the only means of transportation. A branch railway line north

from Edmonton to Waterways on the Athabaska River, begun in 1914, was not completed until 1926. Aeroplanes were seen in increasing numbers in the north after 1921, and in 1929 the first commercial flight was made over the Arctic Circle. In the same year air mail delivery began in the Mackenzie district. The Bear Lake discoveries of 1930 and '31 caused a boom in air travel. Planes delivered the prospectors to the country and later many of the machines and supplies for the opening up of the mines. While there is still plenty of use for boat and dog-team the aeroplane has become today the accepted form of transportation in the western Arctic.

In the Eastern Arctic where no great mineral strikes have yet been made, planes were a rarity until 1941. Then the value of air bases in this section of northern Canada, both for defence and for the northern air route to Europe, became apparent. Baffin Island especially became the centre of activity. If the aeroplane gains a toe hold here during the years of conflict it is quite probable that it will have as great an influence on the development of Canada's Eastern Arctic as it already has had in the west.

The Canadian North may have an even more important role to play in the much-advertised drama of international post-war air travel via the north polar regions. Undoubtedly the shortest routes between east and west lie over these areas, and several successful flights have already been made, notably by Russian flyers. The number of planes which may be using the modified polar route over Alaska to Russia and China is a military secret but the development of successful techniques in this area should be of immense value in any post-war aerial plans. On the ground the war has brought

renewed activity to the Western Arctic in the building of the Alaska Highway and the further developments of the oil resources of the Mackenzie valley.

The North Today.

Here then is our north today. A fairly advanced stage of development in the mainland Western Arctic based on mining, aerial, and military activities, is buttressed by the increasing importance of areas in the east and in the Arctic Islands that have been least touched by civilization. It is quite probable that the mineral resources of the north are extensive. Large available supplies of copper are known as well as deposits of other base metals and non-metallic minerals, which, unlike the more ephemeral oil, gold, and radium, are capable of forming the backbone of a long-term industry. In the aeroplane, radio, and the possibility of scientific feeding through vitamin pills, dehydrated foods, and all the rest of the modern dietetic innovations, lie the means of developing Canada's northland if and when its economic possibilities make such efforts worthwhile. The cold and the long polar night remain definite drawbacks, but man has managed to exist wherever it has become to his advantage to do so, and it may be that the Arctic regions of the world will be no exception to the rule.

BOOKS TO READ

With a few exceptions the literature of Canada's Northland has not been the work of scholars laboriously compiling data from various sources, but of explorers, travellers, officers of the law, scientists, students, or journalists, who have spent varying periods of time in different sections of the area and have returned to write of their own experiences and reactions. The first-hand adventures of these men and women form a tremendously interesting and often valuable personal record but were never intended for, and can hardly be regarded as, definitive history. Since most of them are limited in scope it has been necessary to select a rather large number of books in order to give the reader some idea of all the various districts, together with information on specialized work which has been carried on in the north during recent years. The following fifteen books are not then necessarily the best fifteen volumes on Canada's Northland, but have been chosen because together they present an interesting and composite picture of our new frontier.

To the North! by Jeannette Mirsky

Miss Mirsky's book is a general history of Arctic exploration and therefore includes the story of the discovery of Canada's Arctic lands. After a preliminary description of the Arctic in general and men's reasons for seeking the north, the author continues with the early northern explorations of the Greeks and the Vikings and then goes on to relate the whole course of Arctic discovery up to the present. Since the book was published in 1934 there is very little on the modern Russian contributions to polar research which are, in any case, even now imperfectly known. On the whole, it is an interesting and well-planned story of northern

exploration, as far as possible in the "explorers' own words". A large coloured map at the end will assist the reader in tracing the wanderings of the many men of all nations who have sailed "to the north".

The Search for the Northwest Passage, by Nellis M. Crouse

It is customary for the compiler of a reading list to begin with the general and then go on to the particular. For this reason Mr. Crouse's book is a logical second to Miss Mirsky's. It should be read first by Canadians. Written in a fascinating and detailed way it arouses an interest that is sustained throughout the book and is guaranteed to get any citizen of the Dominion excited about this phase of Canadian exploration. It will send its readers, as a natural course, to Miss Mirsky's book to fill up the gaps in their knowledge of the discovery of the Arctic. After a first chapter on the preliminary voyages in search of the Passage, Mr. Crouse introduces Sir John Barrow, the genius of early nineteenth century British Arctic exploration, and goes on to the stories of Ross, Parry, Franklin, Richardson, Back, Rae, Simpson, McClure, McClintock, and all the others who left their mark on the history of the Passage. His last chapter is an account of Amundsen's voyage in 1903-6.

The Friendly Arctic, by Vilhjalmur Stefansson

This long and detailed book of Stefansson's years in the north as leader of the Canadian Arctic Expedition of 1913-8 was first published in 1921, but a new edition was issued in 1943. The only changes were a new and added preface and a new last chapter "The Friendly Arctic Twenty-One Years After", presenting a picture of the north today and prophesying for it a golden future. This book has been throughout

the years a subject of controversy, for Stefansson's contention that the Arctic is only unfriendly to those who do not know her and will not adapt a suitable way of life, has been loudly and frequently challenged. There is no doubt that Stefansson himself was able to carry out his ideas of Arctic travel and life successfully in the more favourable Western Arctic, but it is also true that even the Eskimos, used to Arctic conditions, were unwilling to venture as far as he did. Moreover, success like Stefansson's does seem to require the sort of person the explorer is, a bold adventurer and hunter par excellence, and a man who never seemed to feel the lack of civilized comforts. Nevertheless, his book has been a handbook of the Arctic for several later explorers who have striven to imitate his method of living as far as possible.

Stefansson's book, being a report of his expedition, is necessarily detailed, and contains many digressions on hunting and equipment. The author's style is leisurely and clear and while some of the details seem unnecessary and repetitious at times, they are on the whole very interesting. The book is important as a record of the last great expedition to the Canadian Arctic and also from the point of view of its thesis, and should be read by all those interested in Canada's northland.

Arctic Adventure, by Peter Freuchen

The following three books are important chiefly for their descriptions of the life of the Eskimos. The sub-title of the first, "My Life in the Frozen North", is an accurate description of the scope of the volume. Peter Freuchen was a friend of Knud Rasmussen, the Danish Eskimo explorer who made his headquarters among the north Greenland Eskimos at Thule and from there carried out much valuable

work. Rasmussen was considered by the people of Greenland as one of them and Freuchen, who married an Eskimo woman, came to be regarded in the same light. Freuchen first went to Greenland on the Dänmark expedition to East Greenland in 1906 and later to Thule as a partner in Rasmussen's trading post. The book is the highly entertaining story of his life and travels in Greenland. The latter part deals with Freuchen's part in the Fifth Thule Expedition around Hudson Bay and is therefore of interest to Canadians. Though he loves the Arctic Freuchen has no particular belief in its "friendly" qualities, and his stories of hardship and even starvation among the Eskimos themselves, illustrate the difficulty of sustaining life in the Eastern Arctic even for those accustomed to its rigours. Realistic and interesting, the book presents delightful pictures of Eskimo hospitality, home life, psychology, and trading methods, although Freuchen, a bit of a romanticist, is inclined at times to exaggerate. Many photographs add to the book's interest.

Kabloona, by Gontran de Poncins, in collaboration with Lewis Galantiere.

This is another story of life with the Eskimos, but an experiment of much shorter duration by a French count who wanted to get away from it all by living with the primitive Eskimos of King William Island and Pelly Bay. The book is beautifully written, and is illustrated with unusual modernistic pencil and colour sketches, as well as a collection of photographs. De Poncins, like Freuchen, came to love the Eskimos and to admire their characteristics and way of life. On the whole, I prefer the more seasoned and stable attitude of the Dane but there is no doubt that the Frenchman, in an imaginative prose which would be difficult to surpass, has

given us a realistic picture of primitive Eskimo life. This book is especially interesting to Canadians because of its setting among the Copper Eskimos of the centre of Canada's northern coast line.

Eskimo Year, by George Miksch Sutton

The author of this book is an ornithologist who spent the year 1929-30 in Southampton Island at the top of Hudson Bay. The Hudson's Bay Company post on the island has brought a certain amount of civilization to the Eskimos of the vicinity, but much of the primitive way of life remains. Like other sojourners in the north the author came to love and admire the Eskimos, and he calls his book "the story of a glorious adventure in a glorious country". It is a simple, delightful, and humorous account, full of interesting tales and events, and deals chronologically with the course of a year in the north. The author has an intimate and whimsical style, and he makes the animals of the north as much a part of the life there as the Eskimos themselves. Though he went out with the idea of living like the natives on his field trips, he makes no bones about the fact that the accomplishment of the feat was a slow process and he is honest about the cold. Perhaps the highlights of the book from the standpoint of humour are the Eskimo game of "five hundred" and Mr. Sutton's description of his first night in an igloo.

Igloo for the Night, by Mrs. T. H. Manning.

This is an important book on the Eastern Arctic with its setting in Baffin Island. Moreover it is a unique account of a woman's experiences in a remote part of the Canadian

north. Mrs. Manning spent two years with her husband on Baffin Island. They travelled by a small boat in the summer and by dog team in winter and lived in tents and igloos like the Eskimos. They were able to carry a small quantity of civilized foods and the use of vitamin pills obviated the necessity for indulgence in raw meat to prevent scurvy, but the mainstay of their diet, like that of the Eskimos, was the meat and fish obtained in the country. In addition, Mrs. Manning cured skins and made clothes according to the native fashion. The book is a straightforward and interesting account of a rather remarkable woman's reactions to the north, which for much of the time might be summed up by the sentence, "One is always hungry, and practically always cold".

Tracks in the Snow, by David Haig-Thomas

This is an account of explorations in Ellesmere, Axel Heiberg and the Ringnes Islands in 1937-8. The book is illustrated by extremely beautiful and unusual photographs. David Haig-Thomas came to the north with Edward Shackleton's Oxford Ellesmere Land Expedition and after it was over, returned on his own to search for prehistoric fossils, of whose existence he had been assured by an old Greenland Eskimo. He is an enthusiast for the Eskimo mode of living. The first half of the book deals with a summer and winter spent in preparation in Greenland and contains interesting descriptions of Eskimo hunting, etc. The last half describes his trip to the most northerly section of the Canadian Arctic Islands. The book is written in a lively sort of style which at times degenerates into the "cute", but the author appears to be a very human sort of person not afraid to admit his own failings or drawbacks.

Northern Lights, by Frederick Spenser Chapman

The locale of this book is Greenland, but it has been included in this reading list because it is the official account of the British Arctic Air Route Expedition of 1930-1. The group was under the leadership of Gino Watkins, the remarkable young Englishman who, before his tragic death at twenty-five in a kayak accident in Greenland, had led four expeditions to the Arctic; and its objective was to find suitable places for air bases as well as to investigate conditions in the centre of the icecap. Two crossings of Greenland were made in addition to survey work of the coast, but a projected flight from the east coast of Greenland to Winnipeg by way of Hudson Bay was not able to be carried out because of damage to the two seaplanes. One of the most remarkable feats was August Courtauld's stay alone on the ice-cap station from the first of December to the middle of May, short of food, and from March on with his tent and two igloos entirely buried in snow. All these events are related in a very interesting fashion and the book also contains numerous digressions, one of especial interest being an account of kayaking and the attempts of the members of the expedition to learn all the tricks of this difficult art.

True North, by Elliott Merrick

This is a book about Labrador, chiefly the country around the Hamilton River and Goose Bay. Interest in this district has been growing in recent years because of the importance of the Ferry Command base at Goose Bay. The author, an American who disliked the life of cities, came to Labrador to try his hand at the simple life of the backwoods. He married an Australian girl, a nurse at the Grenfell Mission at Northwest River and his book

is an account of a trapping expedition they made with the native trappers into the Labrador woods. It is a proselyte's book, full of the author's devotion to the Labrador people and their life. He acknowledges its hardships but to him its advantages outweigh them completely. The book is full of interest and gives valuable information on the methods of trapping as carried on in the district. The people he describes have become old friends before the story is through.

Canada Move North, by Richard Finnie

This book is a kind of handbook on Canada's northland, but deals mostly with the Western Arctic with which the author is more familiar. The subject is treated topically under the headings of geography, exploration, fur trade, missions, administration, transportation and communication, etc. It is not an exhaustive treatment by any means but as far as it goes is a good account of the western Arctic today. Mr. Finnie appears to belong to Stefansson's school and his purpose is to attempt to overcome the average Canadian's mistaken ideas about the north and to arouse his interest in the future possibilities of the area. He puts his case in an interesting and provocative way, and is not afraid to say what he thinks.

Unflinching: A Diary of Tragic Adventure,
by Edgar Christian

This little book is the diary of Edgar Christian, a Welsh boy of eighteen who went to the Barrens in 1926 with John Hornby, an eccentric Englishman who had already done considerable work in the district, and another young man, Harold Adlard. Their intention was to winter on the Barrens near the junction of the Thelon and Han-

bury Rivers, depending on the country for food. Due to a change in the usual migration route the caribou did not visit the region that year and the three men starved to death, young Christian being the last to die. His diary was found two years later, in the place which he had indicated, by two Mounties who came to investigate the tragedy. The editing is atrocious but the diary is valuable as an account of the tragedy and as a picture of the Barrens.

Arctic Pilot, by Walter E. Gilbert and Kathleen Shackleton

This is the story of the experiences of one of the first pilots on the north Canadian air routes, and is a fascinating tale of the role of the aeroplane in the development of Canada's Western Arctic. A pilot in the first world war young Gilbert jumped at the chance to return to his first love in the new land to the north. He describes many of the thrilling northern air flights, the MacAlpine rescue, the flight over the North Magnetic Pole, etc., but he also gives us a splendid picture of the ordinary everyday experiences of the northern pilot and his crew. In his pages we also meet many of the interesting personalities of the new north. Altogether the book is an important contribution to the history of aviation in northwestern Canada.

North Again for Gold, by Edgar Laytha.

This book describes the opening up of the new mining districts of the Mackenzie River basin. Over-dramatic and sentimental in style and, at times, in content, it is nevertheless a good description of life in the district and of the people who are taking part in the experiment. In addition, it is a storehouse of useful information which cannot be found elsewhere.

Policing the Arctic, by Harwood Steele

This exhaustive and at times rather tedious treatise, arranged in chronological order, is a history of the activities of the R.C.M.P. in the north since they entered the Yukon in 1898. A topical treatment of the subject would have made it an easier and more interesting book to read for in its present arrangement the material on any one case may be scattered over several chapters. Nevertheless the stories which have appealed to the imaginations of men of other nations as well as to Canadians are all there if one has the patience to fit them together. The book illustrates too, all the various duties which the Police have carried on so ably in the north and is valuable as the account of an extremely interesting and efficient body of men.

For Further Reading

The reader who wishes to delve further into the study of the Canadian north will find very valuable a series of articles in the Canadian Historical Review contributed since 1934 by Dr. Harold A. Innis of the University of Toronto. These articles, now eleven in number, review recent books on the Canadian North and the Arctic regions of America in general, and have appeared in the following issues: Volume XV, September, 1934; XVI, June, December, 1935; XVII, June, December, 1936; XIX, June, 1941; XX, March 1939; XXI, June, 1940; XXII, June, 1941; XXIII, December, 1942; XXV, March, 1944. The Canadian Government publications on the various sections of Canada's Arctic and the United States Arctic Manual are also recommended.

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* At the time of going to press these books are reported by their publishers to be at least temporarily out of print, and The Canadian Legion Educational Services is unlikely to be able to make them available.

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